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Sequence Listing was accepted.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866)  
217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: Fri Sep 14 16:21:40 EDT 2007

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Application No: 10583301 Version No: 1.0

**Input Set:****Output Set:**

**Started:** 2007-09-04 13:49:57.358  
**Finished:** 2007-09-04 13:49:58.247  
**Elapsed:** 0 hr(s) 0 min(s) 0 sec(s) 889 ms  
**Total Warnings:** 12  
**Total Errors:** 2  
**No. of SeqIDs Defined:** 12  
**Actual SeqID Count:** 12

Error code	Error Description
W 402	Undefined organism found in <213> in SEQ ID (1)
W 402	Undefined organism found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
E 257	Invalid sequence data feature in <221> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
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W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
E 257	Invalid sequence data feature in <221> in SEQ ID (12)

# SEQUENCE LISTING

<110> Shah, Salehuzzaman  
Weselake, Randall  
Alberta Research Council Inc.

<120> Transgenic Plants With Reduced Level of Saturated Fatty Acid and  
Methods for Making Them

<130> 080426-000000US

<140> 10583301

<141> 2007-09-04

<150> CA 2,450,000

<151> 2003-12-18

<150> WO PCT/CA04/02156

<151> 2004-12-17

<160> 12

<170> PatentIn version 3.3

<210> 1

<211> 837

<212> DNA

<213> Synechococcus elongatus ATCC #33912, deposited as  
Anacystis nidulans

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<223> delta-9 desaturase (des9, DSG), fatty acyl-CoA desaturase,  
fatty acid desaturase

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cggctaattt cgcaccgtag ctttgaagtt cccaaatggc tgggaatacgt gctgggtgtc	240
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cacctccact ctgaccaaga tgtcgatcac cacgaactcca acaagggttt cctctggagt	360
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fatty acid desaturase

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1 5 10 15  
  
Leu Phe Met Val Ala Ile His Ile Gly Ala Leu Leu Ala Phe Leu Pro  
20 25 30  
  
Ala Asn Phe Asn Trp Pro Ala Val Gly Val Met Val Ala Leu Tyr Tyr  
35 40 45  
  
Ile Thr Gly Cys Phe Gly Ile Thr Leu Gly Trp His Arg Leu Ile Ser  
50 55 60  
  
His Arg Ser Phe Glu Val Pro Lys Trp Leu Glu Tyr Val Leu Val Phe  
65 70 75 80  
  
Cys Gly Thr Leu Ala Met Gln His Gly Pro Ile Glu Trp Ile Gly Leu  
85 90 95  
  
His Arg His His His Leu His Ser Asp Gln Asp Val Asp His His Asp  
100 105 110  
  
Ser Asn Lys Gly Phe Leu Trp Ser His Phe Leu Trp Met Ile Tyr Glu  
115 120 125  
  
Ile Pro Ala Arg Thr Glu Val Asp Lys Phe Thr Arg Asp Ile Ala Gly  
130 135 140  
  
Asp Pro Val Tyr Arg Phe Phe Asn Lys Tyr Phe Phe Gly Val Gln Val

145	150	155	160
Leu Leu Gly Val Leu Leu Tyr Ala Trp Gly Glu Ala Trp Val Gly Asn			
	165	170	175
Gly Trp Ser Phe Val Val Trp Gly Ile Phe Ala Arg Leu Val Val Val			
	180	185	190
Tyr His Val Thr Trp Leu Val Asn Ser Ala Thr His Lys Phe Gly Tyr			
	195	200	205
Arg Ser His Glu Ser Gly Asp Gln Ser Thr Asn Cys Trp Trp Val Ala			
	210	215	220
Leu Leu Ala Phe Gly Glu Gly Trp His Asn Asn His His Ala Tyr Gln			
225	230	235	240
Tyr Ser Ala Arg His Gly Leu Gln Trp Trp Glu Phe Asp Leu Thr Trp			
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<220>  
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<222> (3)..(4)

<223> Xaa is any amino acid other than Ser

<400> 12

Lys Lys Xaa Xaa

1